



## 10551833 /GAD: 1647

Attorney's Docket No.: 20724-011US1 / UR 1206

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Roman J. Giger

Art Unit : Unknown

Serial No.: 10/551.833 Filed

Examiner: Unknown : October 3, 2005 Confirmation No.: 3920

Title : IDENTIFICATION OF NOGO-RECEPTORS AND METHODS RELATED

THERETO

## MAIL STOP AMENDMENT

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

Applicants request consideration of the references listed on the attached PTO-1449 form. Under 37 C.F.R. § 1.98 (a)(2)(ii), only copies of foreign patent documents and/or non-patent literature are enclosed. Copies of any listed U.S. patents or U.S. patent application publications can be provided upon request.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office Action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 10/20/06

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U.S. Department of Commerce Patent and Trademark Office Information Disclosure Statement by Applicant (Use several sheets if necessary)

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Filing Date

Group Art Unit

(37 CFR §1.98(b))

	U.S. Patent Documents						
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
/CMW/	AA	20020077295	06-20-2002	Strittmatter			
	AB	20020012965	01-31-2002	Strittmatter	-		
	AC	20030113325	06-19-2003	He, et al.			
V	AD	20040029169	02-12-2004	He, et al.			
/CMW/	AE	20040259092	12-23-2004	Barske, et al.			

	Foreign Patent Documents or Published Foreign Patent Applications							
Examiner	Desig.	Document	Publication	Country or				lation
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
/CMW/	AF	WO 03/018631	03-06-2003	PCT				
/CMW/	AG	WO 03/035687	05-01-2003	PCT		******		
	AH							
	AI							
	AJ							

	Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner	Desig.				
Initial	_ ID _	Document			
/CMW/ AK		Adams et al., "A role for syndecan-1 in coupling fascin spike formation by thrombospondin-1" J. Cell Biol., 2001. 152(6):1169-82.			
	AL	Bandtlow and Zirnnlerrnann, "Proteoglycans in the developing brain: new conceptual insights for old proteins." <i>Physiol. Rev.</i> , 2000. 80(4): 1267-90.			
	AM	Barnett et al., "Signaling by glial cell line-derived neurotrophic factor (gdnf) requires heparan sulphate glycosaminoglycan." J Cell Sci ,2002. 11 5(23):4495-503.			
/CMW/	AN	Barton et al., "Structure and axon outgrowth inhibitor binding of the Nogo-66 receptor and related proteins." <i>EMBO J</i> 2003. 22(13):3291 -302.			

Examiner Signature	Date Considered						
/Cherie M. Woodward/	12/24/2007						
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							
	Substitute Disclosure Form (PTO-1449)						

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Substitute Form PTO-1449 (Modified)			Application No.	
Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Roman J. Giger		
		Filing Date	Group Art Unit	
(37 CFR §1.98(b))				

	Other Documents (include Author, Title, Date, and Place of Publication)				
	miner	Desig.			
Initial ID		טו	Document		
/C	MW/	AO	Berndt et al., "Cloning and characterization of human sytidccnn-3." <i>J Cell Biochem.</i> , 2001. 82(2):246-59.		
		AP	Bowers et al., "Expression of vhs and VP16 during HSV-1 helper virus-free amplicon packaging enhances titers" Gene Ther., 2001, 8(2):111-20.		
		AQ	Bregman et al., "Recovery from spinal cord injury mediated by antibodies to neurite growth inhibitors." Nature, 1995. 378(6556):498-501.		
		AR	Brosamle et al., "Regeneration of lesioned corticospinal tract fibers in the adult rat induced by a recombinant, humanized IN-l antibody fragment." J. Neurosci., 2000. 20(21):8061-8.		
		AS	Carey, "Syndecans: Multifunctional cell-surface co-receptors." J. Biochem., 1997. 327(1):1-16.		
		AT	Caroni and Schwab, "Antibody against myelin-associated inhibitor of neurite growth neutralizes non-permissive substrate properties of cns white matter." <i>Neuron</i> , 1988. 1(1):85-96.		
		AU	Chen et al., "Nogo-a is a myelin-associated neurite outgrowth inhibitor and an antigen for monoclonal antibody IN-1." <i>Nature</i> , 2000. 403(6768):434-9.		
		AV	Collins et al., "Sialic acid specificity of myelin-associated glycoprotein binding." J. Biol. Chem., 1997. 272(2):1248-55.		
		AW	DeBellard et al., "Myelin-associated glycoprotein inhibits axonal regeneration from a variety of neurons via interaction with a sialoglycoprotein." <i>Molecular and Cellular Neuroscience</i> , 1996. 7:89-101.		
		AX	Domeniconi et al., "Myelin-associated glycoprotein interacts with the nogo66 receptor to inhibit neurite outgrowth." <i>Neuron</i> , 2002. 35(2):283-90.		
		AY	Ethell et al., "Ephb/syndecan-2 signaling in dendritic spine morphogenesis. <i>Neuron</i> , 2001. 31(6):1001-13.		
		AZ	Fournier et al., "Truncated soluble nogo receptor binds nogo-66 and blocks inhibition of axon growth by myelin." J. Neurosci., 2002. 22(20):8876-83.		
		AAA	Fournier et al., "Identification of a receptor mediating nogo-66 inhibition of axonal regeneration."  Nature, 2001. 409(6818):341-6.		
		ABB	Fournier and Strittmatter, "Repulsive factors and axon regeneration in the cns." Curr. Opin. Neurobiol., 2001. 11(1):89-94.		
		ACC	Giger et al., "Anatomy of rat semaphorin iii/collapsin-1 mma expression and relationship to developing nerve tracts during neuroembryogenesis." <i>J Comp Neurol</i> , 1996.375(3):318-92.		
		ADD	Giger et al., "Adenovirus-mediated gene transfer in neurons: construction and characterization of a vector for heterologous expression of the axonal cell adhesion molecule axonin-1." J. Neurosci. Methods, 1997 1: 99-111.		
		AEE	Giger et al., "Anatomical distribution of the chemorepellent semaphorin iii/collapsin- l in the adult rat and human brain: Predominant expression in the olfactory-hippocampal pathway and the motor system." J. Neurosci. Res., 1998. 1:27-42.		
		AFF	Giger et al., "Neuropilin-2 is a receptor for semaphorin iv: Insight into the structural basis of receptor function and specificity." <i>Neuron</i> , 1998. 21:1074-1092.		
\	/	AGG	Giger et al., "Neuropilin-2 is required in vivo for selective axon guidance responses to secreted semaphorins." Neuron, 2000. 25(1):29-41.		
/6	MW/	АНН	GrandPre et al., "Nogo-66 receptor antagonist peptide promotes axonal regeneration." <i>Nature</i> , 2002. 417(6888):547-51.		

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Substitute Form PTO-1449 U.S. Department of Comm (Modified) Patent and Trademark C		Attorney's Docket No. 20724-011US1	Application No.
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(37 CFR §1.98(b))			

(37 CFR 91.90	3(D))	
	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner Initial	Desig. ID	Document
/CMW/	AII	GrandPre et al., "Identification of the nogo inhibitor of axon regeneration as a reticulon protein."  Nature, 2000. 403(6768):439-44.
	AJJ	Granes et al., "Ezrin links syndecan-2 to the cytoskeleton." J. Cell Sci. 2000. 113( Pt 7): 1267-76.
	AKK	Hartmann and Maurer, "Proteoglycans in the nervous systemthe quest for functional roles in vivo."  Matrix Biol., 2001. 20(1):23-35.
	ALL	Heinegard and Sommarin, "Proteoglycans: an overview." Methods Enzmol., 1987. 144:305-19.
	AMM	Hileman et al., "Glycosaminoglycan-protein interactions: Definition of consensus sites in glycosaminoglycan binding proteins." <i>Bioessays</i> , 1998. 20(2):156-67.
	ANN	Hsuch and Sheng, "Regulated expression and subcellular localization of syndecan heparan sulfate proteoglycans and the syndecan-binding protein CASWLIN-2 during rat brain development." J Neurosci., 1999. 19(17):7415-25.
	A00	Josephson et al., "Nogo-receptor gene activity: Cellular localization and developmental regulation of mRNA in mice and humans." <i>J Comp Neurol.</i> , 2002. 453:292-304.
	APP	Kaksonen et al., "Syndecan-3-deficient mice exhibit enhanced ltp and impaired hippocampus- dependent memory." Mol Cell Neurosci., 2002. 2l(1):158-72.
	AQQ	Kawai et al., "Mice expressing only monosialoganglioside gm3 exhibit lethal audiogenic seizures."  J. Biol. Chem, 2001. 276(10):6885-8.
	ARR	Kelm et al., "Sialoadhesin, myelin-associated glycoprotein and cd22 define a new family of sialic acid-dependent adhesion molecules of the immunoglobulin superfamily." Current Biology, 1994. 4(11):965-72.
	ASS	Kinnunen et al., "Heparan sulphate and HB-GAM (heparin-binding growth-associated molecule) in the development of the thalamocortical pathway of rat brain." Eur J Neurosci., 1999. 11(2):491-502.
	ATT	Kobe and Deisenhofer, "The leucine-rich repeat: a versatile binding motif." TIBS, 19:415-420. Oct 119/13
	AUU	Kobe and Kajava, "The leucine-rich repeat as a protein recognition motif." Curr. Opin. Struct. Biol., 2001. 11:725-32.
	AVV	Kolodkin et al., "Neuropilin is a semaphorin iii receptor." Cell, 1997. 90(4):757-62.
	AWW	Kolter et al., "Combinatorial ganglioside biosynthesis." J. Biol. Chem., 2002. 277(29): 25859-25862.
	AXX	Kottis et al., "Oligodendrocyte-myelin glycoprotein (omgp)is an inhibitor of neurite outgrowth." J Neurochem, 2002. 82(6):1566-3.
	AYY	Kunkel-Bagden et al., "Methods to assess the development and recovery of locomotor function after spinal cord injury in rats." Exp Neurol, 1993. 119(2):153-64.
	AZZ	Li and Raisman, "Schwann cells induce sprouting in motor and sensory axons in the adult rat spinal cord." Journal of Neuroscience, 1994. 14(7):4050-63.
	AAAA	Liu et al., "Myelin-associated glycoprotein as a functional ligand for the nogo-66 receptor." Science, 2002. 297(5584):1190-3.
V_	ABBB	Liu et al., "A genetic model of substrate deprivation therapy for a glycosphingolipid storage disorder." J. Clin. Invest. 1999. 103(4): 497-505.
/CMW/	ACCC	Maasho et al., "Efficient gene transfer into the human natural killer cell line, NKL, using the Amaxa nucleofection system." J Immunol Methods, 2004. 284(1-2):133-40

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Substitute Form PTO-1449 U.S. Department of Commerce (Modified) U.S. Department of Commerce Patent and Trademark Office 20724-011US1 Application No.			
Information Disclosure Statement Applicant Roman J. Giger			
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(37 CFR §1.98(b))			

	Other D	ocuments (include Author, Title, Date, and Place of Publication)	1
Examiner	Desig.		
Initial ID		Document	
/GMW/	ADDD	Maguir-Zeis et al., "HSV vector-mediated gene delivery to the central nervous system." Curr. Opin. Mol. Ther., 2001. 3(5):482-90.	
	AEEE	McKerracher et al., "Identification of myelin-associated glycoprotein as a major myelin-derived inhibitor of neurite growth." <i>Neuron</i> , 1994. 13(4):805-11.	
	AFFF	McKerracher and Winton, "Nogo on the go." Neuron, 2002. 36(3):345-8	
	AGGG	Mikol and Stefansson, "A phosphatidylinositol-linked peanut agglutinin-binding glycoprotein in central nervous system myelin and on oligodendrocytes." J Cell Biol., 1988. 106(4):1273-9.	
	АННН	Mukhopadhyay et al., "A novel role for myelin-associated glycoprotein as an inhibitor of axonal regeneration." <i>Neuron</i> , 1994. 13(3):757-67.	
	AIII	Niederost, et al., "Bovine CNS myelin contains neurite growth-inhibitory activity associated with chondroitin sulfate proteoglycans" <i>Journal of Neuroscience</i> , 1999, 19(20):8979-89.	
	AJJJ	Niederost et al., "Nogo-a and myelin-associated glycoprotein mediate neurite growth inhibition by antagonistic regulation of rhoa and racl." J Neurosci., 22(23):10368-76. 1 Dec 2002 /CMW/ 11/1	3/2008
	AKKK	Pignot et al., "Characterization of two novel proteins, NgRH1 and NgRH2, structurally and biochemically homologous to the Nogo-66 receptor." Journal of Neurochemistry, 2003. 85:717-28.	
	ALLL	Prinjha et al., "Inhibitor of neurite outgrowth in humans." Nature. 2000. 403(6768):383-4	
	AMMM	Qiu et al., "Glial inhibition of nerve regeneration in the mature mammalian CNS." Glia, 2000. 29:166-74	
	ANNN	Savio and Schwab, "Lesioned corticospinal tract axons regenerate in myelin-free rat spinal cord." PNAS, 1990. 87(11):4130-41.	
	A000	Savio and Schwab, "Rat cns white matter, but not gray matter, is non-permissive for neuronal cell adhesion and fiber outgrowth." J Neurosci, 1989. 9(4):1126-33.	
	APPP	Schnaar, "Myelin molecules limiting nervous system plasticity." Progress in Molecular and Subcellular Biology, 2003. 32:125-42.	
	AQQQ	Schnell and Schwab, "Axonal regeneration in the rat spinal cord produced by an antibody against myelin-associated neurite growth inhibitors." <i>Nature</i> , 1990, 343(6255):269-72.	
	ARRR	Strenge et al., "Glycan specificity of myelin-associated glycoprotein and sialoadhesin deduced from interactions with synthetic oligosaccharides." Eur J Biochem, 1998. 258(2):677-85.	
	ASSS	Thallmair et al., "Neurite growth inhibitors restrict plasticity and functional recovery following corticospinal tract lesions." Nat. Neurosci., 1998. 1(2):124-31.	
	ATTT	Tang et al., "Soluble myelin-associated glycoprotein released from damaged white matter inhibits axonal regeneration." Mol Cell Neurosci., 2001. 18(3):259-69.	
	AUUU	Tang et al., "Myelin-associated glycoprotein interacts with neurons via a sialic acid binding site at ARG118 and a distinct neurite inhibition site." Journal of Cell Biology 138:1355-1366. 22 Sept 19	97 /CMM/
	AVVV	Vogt et al., "Continuous renewal of the axonal pathway sensor apparatus by insertion of new sensor 1 molecules into the growth cone membrane." <i>Curr. Biol.</i> , 1996. 6:1153-8.	
	AWWW	von Schack et al., "Complete ablation of the neurotrophin receptor p75ntr causes defects both in the nervous and the vascular system." Nat Neurosci, 2001. 4(10):977-8.	
1	AXXX	Vyas and Sellnaar, "Brain gangliosides: functional ligands for myelin stability and the control of nerve regeneration." <i>Biochem J</i> , 2001. 83:677-82.	
/CMW/	AYYY	Vyas et al., "From the cover: Gangliosides are functional nerve cell ligands for myelin-associated glycoprotein (mag), an inhibitor of nerve regeneration." PNAS, 2002. 99(12):8412-8417.	
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		Filing Date	Group Art Unit		

Other Documents (include Author, Title, Date, and Place of Publication)						
Examiner	Desig.					
Initial	JU	Document  Wang et al., "Oligodendrocyte-myelin glycoprotein is a nogo receptor ligand that inhibits neurite				
/CMW/ AZZZ		outgrowth." Nature, 2002. 417(6892):941-4.				
.	AAAAA	Wang et al., "Localization of nogo-a and nogo-66 receptor proteins at sites of axon-myelin and synaptic contact," J. Neurosci., 2002. 22(13):5505-5515.				
	ABBBB	Wang et al., "P75 interacts with the nogo receptor as a co-receptor for nogo, mag and omgp."  Nature, 2002. 420(6911):74-8.				
	ACCCC	Wong et al., "p75(ntr) and nogo receptor complex mediates repulsive signaling by myelin-associated glycoprotein." Nat. Neurosci., 2002. 5(12):1302-8.				
	ADDDD	Yamashita et al., "The p75 receptor transduces the signal from myelin-associated glycoprotein to rho." J Cell Biol, 2002. 157(4):565-70.				
	AEEEE	Yang et al., "Gangliosides are neuronal ligands for myelin-associated glycoprotein." PNAS, 1996. 93(2):814-8.				
	AFFFF	Zimmermann and David, "The syndecans, tuners of transmembrane signaling." FASEB J., 1999. 13(Suppl.):S91-S100.				
/CMW/	AGGGG	Zito and Svoboda, "Activity-dependent synaptogenesis in the adult Mammalian cortex." Neuron, 2002. 35(6):1015-7.				
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